

# **PULLMAN-HOLT**

## ***Operation & Care Instructions***

**Save For Future Reference**

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### **GB1400E - electric floor scrubber**



## TABLE OF CONTENTS

<b>RECEIVING THE MACHINE</b>	4
<b>FOREWARD</b>	4
<b>TECHNICAL DESCRIPTION</b>	5
<b>SYMBOLS USED ON THE MACHINE</b>	6
<b>GENERAL SAFETY REGULATIONS</b>	7
<b>PREPARING THE MACHINE</b>	8
1. CONNECTOR CONNECTION	9
2. FASTENING THE HANDLEBARS	9
3. DETERGENT SOLUTION	9
4. RECOVERY TANK	10
5. SOLUTION TANK	10
<b>OPERATION</b>	11
1. PREPARING TO WORK	11
2. OVERFLOW DEVICE	11
3. FORWARD MOVEMENTS	12
<b>AFTER WORK IS DETERMINED</b>	13
<b>DAILY MAINTENANCE</b>	14
1. CLEANING THE RECOVERY TANK	14
2. CLEANING THE SQUEEGEE	14
3. REPLACING THE SQUEEGEE RUBBERS	15
4. DISASSEMBLY	15
<b>SCHEDULED MAINTENANCE</b>	16
1. CLEANING THE SQUEEGEE TUBE	16
2. CLEANING THE FILTER AND SOLUTION TANK	16
<b>CHECKING OPERATION</b>	17
1. ELECTRICAL SYSTEM SAFETY	17
2. INSUFFICIENT WATER ON THE BRUSHES	17
3. THE MACHINE DOES NOT CLEAN WELL	17
4. THE SQUEEGEE DOES NOT DRY THE FLOOR PERFECTLY	17
5. TOO MUCH FOAM IS GENERATED	17
<b>BRUSH SELECTION AND USE</b>	18

## **Receiving the machine**

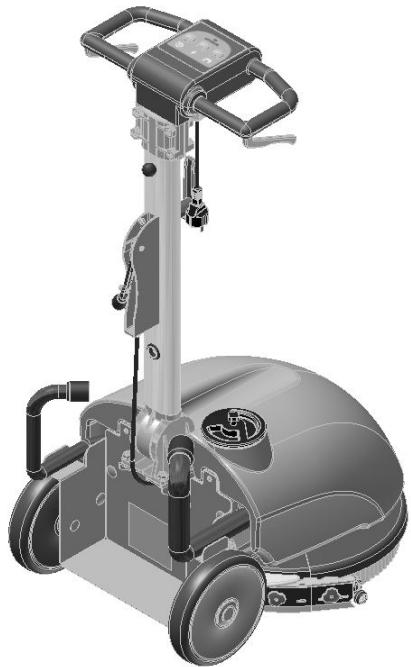
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Immediately check, when receiving the machine, that all the materials indicated on delivery documents have been received and also that the machine has not been damaged in transit. If it has been damaged, this damage must be immediately reported to the shipper and also to our customer's service department. Only acting promptly in this manner will make it possible to receive missing material and to be compensated for damage.

## **Foreward**

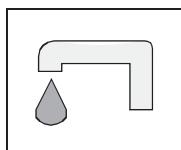
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This is a floor scrubbing machine that is able to clean any type of floor by using the mechanical action of the rotating brush and the chemical action of the water-detergent solution. As it moves forward it also gathers up the dirt removed and the detergent solution that has not been absorbed by the floor. The machine must only be used for this function. Even the best machines will only operate efficiently and work with profit if they are used properly and kept in perfect operating order. Read this instruction booklet carefully and consult it every time problems arise with machine operation.



TECHNICAL DESCRIPTION	UM	GB1400E
Rated power	W	480
Working width	in	14
Rear squeegee width	in	17
Brushes (diameter or length)	in	14
Brush revolutions	rpm	140
Pressure on the brushes	lbs	44
Solution tank PE	gal	3
Recovery tank PE	gal	3
Weight of empty machine (including brush and tanks)	lbs	77
Length of the open machine	in	25
Length of the closed machine	in	35

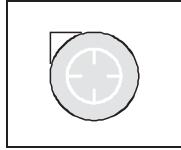
## SYMBOLS USED ON THE MACHINE



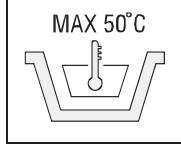
Tap symbol  
Used to indicate the solenoid valve switch



Voltage symbol  
Used to indicate the machine's voltage switch



Used to indicate the suction motor switch



Located near the solution tank refill spout

## GENERAL SAFETY REGULATIONS

### Follow these instructions carefully to avoid harm to the operator and damage to the machine.

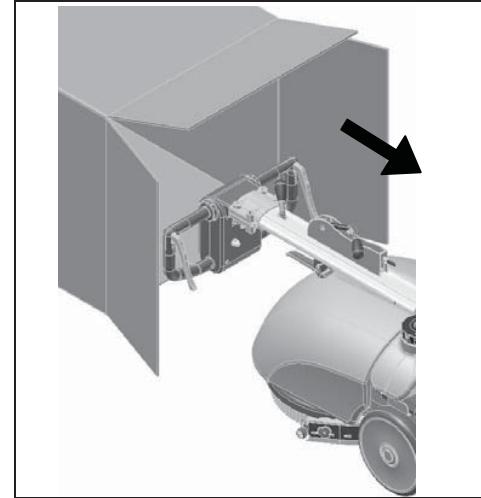
- Read the labels on the machine carefully. Never cover them for any reason and replace them immediately if they become damaged.
- The machine must be used exclusively by authorized, trained personnel.
- During the working of the machine, pay attention to other people and especially to children.
- The machine is not suitable for cleaning carpets
- The power cable outlet must be provided with a proper ground.
- Avoid damaging the machine's power supply cable by crushing or bending it, or applying stress.
- Do not let the power cable come into contact with the rotating brush.
- If you notice any type of damage to the machine's power cable, contact a **Pullman-Holt** service center immediately.
- Never mix different types of detergent as this may produce harmful gases.
- Never place any liquid containers on the machine.
- The storage temperature must be between -13°F. and +131°F.; do not store outdoors in damp conditions.
- Operating Conditions of use: room temperature between 32°F. and 104°F. with relative humidity between 30 and 95%.
- Only use the machine in closed areas and do not expose it directly to rain.
- Never use the machine in an explosive atmosphere.
- Never use the machine as a means of transport.
- Never use acid solutions, which may damage the machine.
- Avoid running the brushes when the machine is stopped, so as not to damage the floor.
- Never vacuum inflammable liquids.
- Never use the device to collect dangerous powders.
- Use a powder extinguisher in case of fire. Do not use water.
- Never knock against shelving or scaffolding, where there is a danger of falling objects. The operator must always be equipped with the appropriate safety devices (gloves, shoes, helmet, goggles, etc.)
- Never use the machine on surfaces with an inclination greater than the one shown on the plate.
- The machine is designed to carry out the washing and drying operations simultaneously. Different operations should only be carried out in areas where the passage of unauthorized persons is prohibited. Signal the presence of damp floors with suitable signs.
- If you need to replace any components, request the ORIGINAL spare parts from a **Pullman-Holt** dealer and/or Authorized Retailer.
- For all maintenance interventions, switch off the machine and disconnect the power cable from the socket.
- Never remove any protection devices which require the use of tools in order to be removed.
- Never wash the machine with direct water jets or with pressurised water, nor with corrosive substances.**
- Have Your Pullman-Holt service center check the machine every year.
- Avoid clogging the solution tank filter; do not fill with detergent solution a long time before starting to use the machine.
- Before using the machine, check that all the hatches and covers are positioned as shown in Operating and Maintenance Manual.
- Dispose of consumables in accordance with existing laws and codes.
- When your **Pullman-Holt** machine has reached the end of its long working life, dispose of the materials it contains (especially oils and electronic components) in an appropriate manner, and bearing in mind that the machine itself was constructed using 100% recyclable materials.
- Use only brushes furnished with the machine or those specified in the user's manual. Use of other brushes can compromise safety.
- The machine is not suitable for use by children or people with reduced physical, mental and sensorial capacities, or people lacking experience and knowledge, unless supervised and instructed in the use of the machine by a person responsible for their safety.
- Children must be supervised to ensure they do not play with the device

When, after years of precious work, your Pullman-Holt machine is ready to be retired, its entire component materials must be properly disposed of: they contain oils and electronic components. Remember that the machine itself was built using totally recyclable materials.

## PREPARING THE MACHINE

### 1. HOW TO UNPACK THE MACHINE

1. Open the packaging on the side indicated.
2. Take the machine out of its packaging.



### 2. HANDLING AND TRANSPORTATION OF THE UNPACKED MACHINE

Lift the front of the machine, using the handlebars as a lever. The GB1400E can be transported by car. It can be folded up and placed in the trunk of a car without disassembling any components.



## PREPARING THE MACHINE

### 3. CONNECTING THE MACHINE

1. Connect the extension lead to the plug on the handlebars
2. Block the extension lead to the cable-holder handle in front of the handlebars
3. Connect the extension lead to the wall socket



**ATTENTION:** before connecting the extension lead to the socket, check the switches are in the off ("0") position!



### 4. FIXING THE HANDLEBARS

For packaging purposes the handlebars are supplied folded; they must now be put in the working position. Proceed as follows:

1. Lift the handlebars, pulling the lever (indicated by the arrow) upwards
2. The machine is now in working position

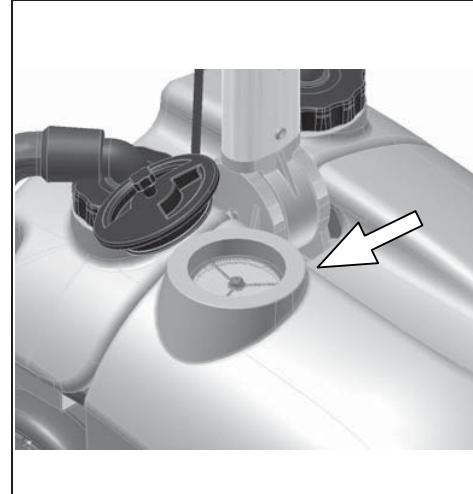


### 5. DETERGENT SOLUTION

Fill the solution tank with clean water at a temperature that does not exceed 122°F. Add liquid detergent in the proper concentration and according to the procedures of the manufacturer. Use only a minimal percentage of detergent to prevent formation of an excess amount of foam since too much foam may damage the suction motor.



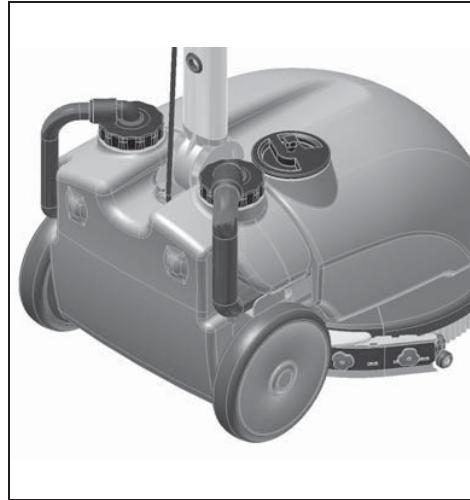
**ATTENTION:** Always use low foam detergent. Introduce a small amount of anti-foam detergent in the recovery tank before start to work to be sure to prevent foam from being generated. Never use pure acids.



## PREPARING THE MACHINE

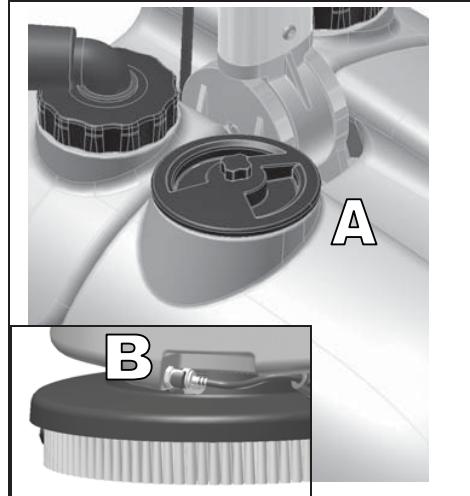
### 6. RECOVERY TANK

Make sure that the recovery tank is properly inserted in its housing and that the tubes are properly inserted in the tank elbows. Check that the plug is properly closed.



### 7. SOLUTION TANK

Check that the cap is correctly inserted in its housing and that the vent pin is lowered (A). Check that the valve is correctly engaged (B).



## OPERATION

### 1. PREPARING TO WORK

The following procedures must be done before installing the tanks:

1. Check the switches are in the off ("0") position
2. Connect the cable to the socket



3. Prepare the machine for operation
4. Lower the squeegee command lever in order to start working



5. Press the main switch (1) and check that the green indicator light comes on
6. Press the suction switch (2) and check that the green indicator light comes on
7. Press the solenoid valve switch (3) and check that the green indicator light comes on. At this point, the machine can work efficiently using the operating lever that operates the brushes (4), until the detergent solution is finished.

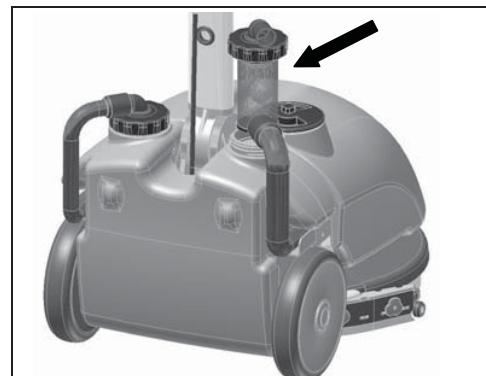


### 2. OVERFLOW DEVICE

The machine is fitted with a float filter which intervenes when the recovery tank is full, causing the suction tube to close. In this case, it is necessary to switch off the machine and empty the recovery tank.



ATTENTION: Always wear gloves when doing this operation to protect yourself from contact with hazardous solutions.



### 3. FORWARD MOVEMENTS

The traction of these machines is obtained by means of the brush which, working slightly inclined, is able to drag the machine forward.



ATTENTION: Always make sure that squeegee is lifted when moving backwards, even for short distances.



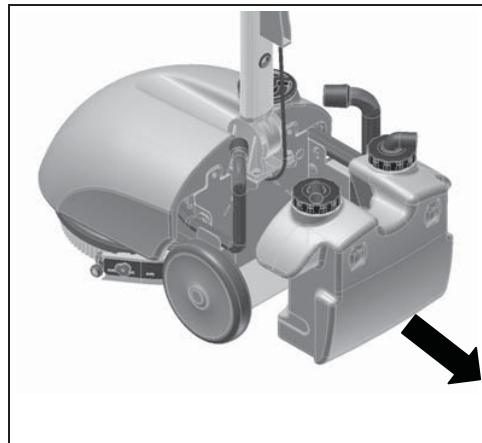
### AFTER THE WORK IS TERMINATED

Proceed as follows at the end of the work cycle and before you perform any type of maintenance.

1. Turn off the solenoid valve switch (3)
2. Raise the squeegee by mean of the rear handle (4)
3. Turn off the suction switch (2)
4. Turn off the main switch (1)
5. Disconnect the power cable from the socket



6. Move the machine to the place provided for draining the water
7. Detach the tubes and remove the recovery tank



8. Empty the recovery tank by removing the caps and tilting it
9. Disassemble the brush and clean it with a jet of water (to disassemble the brush, see "DISASSEMBLING THE BRUSH" page 15)



**ATTENTION:** Always wear gloves when doing this operation to protect yourself from contact with hazardous solutions



## DAILY MAINTENANCE



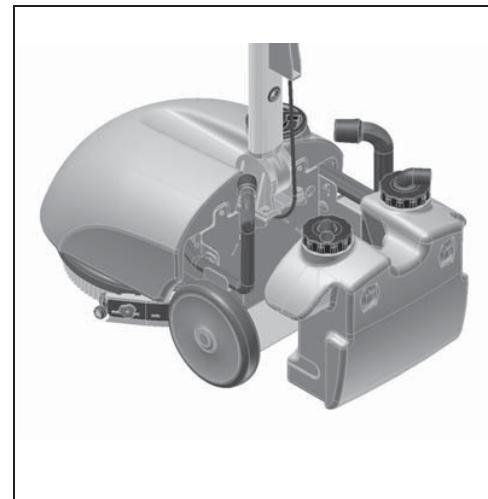
**ATTENTION:** Disconnect the power cable from the main socket before carrying out any maintenance operations.

### 1. CLEANING THE RECOVERY TANK

1. Remove the tubes attached to the connectors of the recovery tank caps.
2. Remove the recovery tank.



**ATTENTION:** Always wear gloves when doing this operation to protect yourself from contact with hazardous solutions.



3. Remove the caps to open the tank.
4. Clean the filter under running water.
5. Rinse the tank and clean with a jet of water.



### 2. CLEANING THE SQUEEGEE

Check that the squeegee rubbers are always clean. This ensures optimum drying.

To clean them:

1. Lift the machine
2. Carefully clean the inside
3. Carefully clean the squeegee rubbers



**ATTENTION:** Always wear gloves when doing this operation to protect yourself from contact with hazardous solutions.



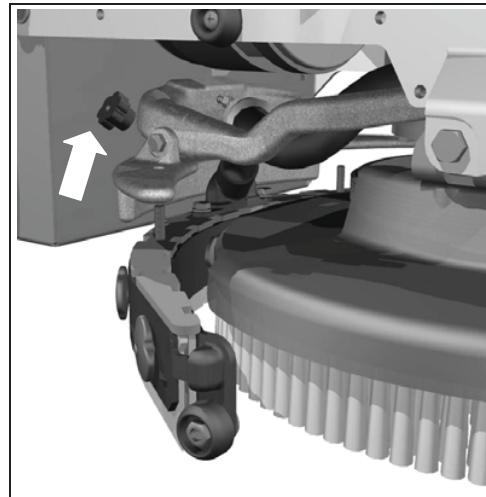
## DAILY MAINTENANCE

### 3. REPLACING THE SQUEEGEE RUBBERS

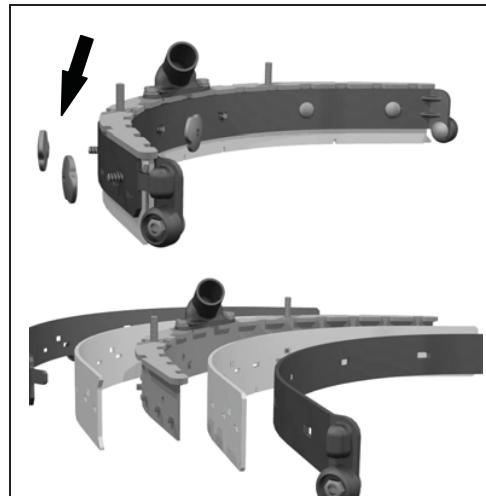
Check the condition of the squeegee rubbers. Replace as necessary.

To replace the rubbers:

1. Lift the squeegee
2. Remove the two knobs
3. Detach the squeegee from its support
4. Remove the tube from the squeegee to permit the squeegee to be removed



5. Unscrew squeegee knobs that clamp the blades and pull them out
6. Remove the blades
7. Replace the rubbers
8. Reinstall everything by performing these procedures in reverse



### 4. DISASSEMBLING THE BRUSH

1. Lift the squeegee
2. Lift the machine by using the handlebars as a lever and position it with the recovery tank on the ground
3. With the base lifted, remove the brush manually by rotating it clockwise



**ATTENTION:** Disconnect the power cable from the mains socket before carrying out any maintenance operations.



**ATTENTION:** Make sure there are no objects or persons in the vicinity of the brush when doing this operation.



## SCHEDULED MAINTENANCE

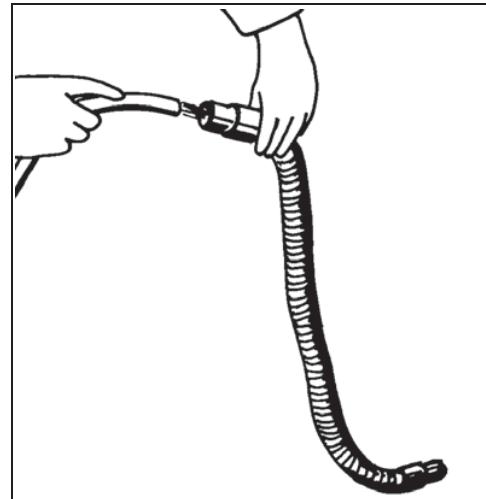
### 1. CLEANING THE SQUEEGEE TUBE

Check the squeegee tube for clogging if the suction is insufficient or at periodic intervals. To clean the tube proceed as follows:

1. Remove the tube from the sleeve on the squeegee
2. Remove the other end from the recovery tank
3. Wash the inside of the tube with a jet of water, spraying from the end where the tank is inserted
4. Reinstall the tube



**ATTENTION:** Do not wash the tube running between the suction unit and the suction cap.

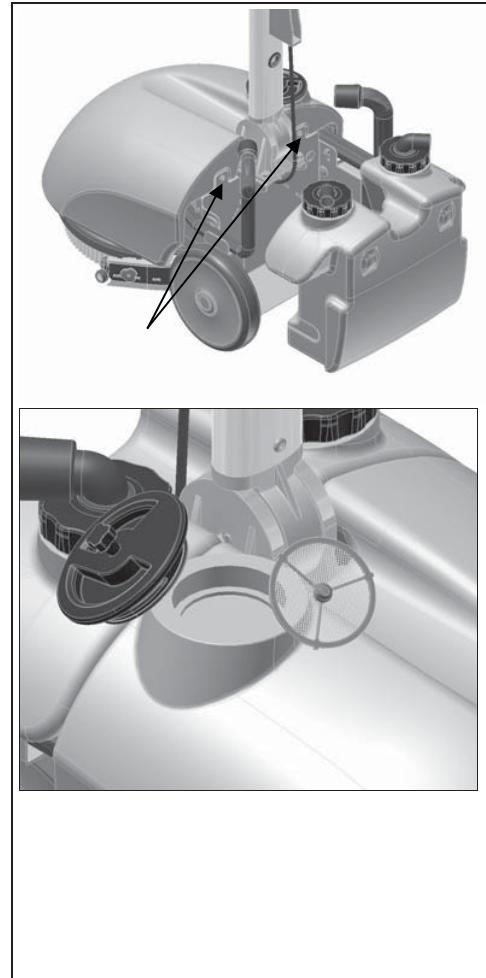


### 2. CLEANING THE SOLUTION TANK AND FILTER

1. Remove the recovery tank.
2. Remove the quick connection to avoid breaking the connection itself.
3. Remove the two screws fixing the solution tank to the frame.
4. Remove the solution tank by pushing it forwards and unhooking it from the fixing bracket.
5. Loosen the solution tank cap.
6. Remove the filter and clean it.
7. Rinse the tank and clean with a jet of water.
8. Reinstall the filter and cap.
9. Reinstall the tank, carrying out the above operations in the reverse order.



**ATTENTION:** Always wear gloves when doing this operation to protect yourself from contact with hazardous solutions.

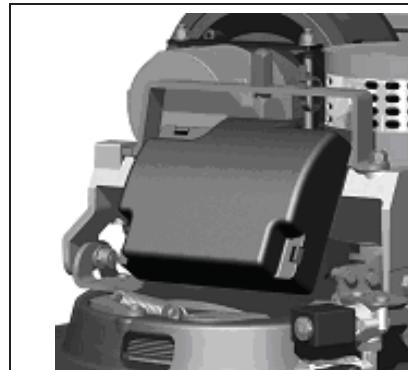


## TROUBLESHOOTING

### 1. ELECTRICAL SYSTEM SAFETY

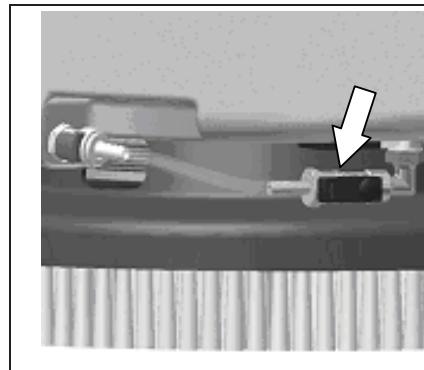
The machine has a thermal trip unit with manual reset.

The brush motor is reset by resetting the thermal trip unit located beneath the handlebars. If the machine stops repeatedly in a short space of time, it is necessary to contact a Pullman-Holt service center.



### 2. INSUFFICIENT WATER ON THE BRUSHES

1. Check that the solution tank filter is clean
2. Check the solenoid valve switch is turned on
3. Check the quick fitting connection is properly engaged
4. Check the adjustment screw on the cock that supplies water



### 3. THE MACHINE DOES NOT CLEAN WELL

1. Check the condition of the brushes. Replace them as required. Brushes must be replaced when bristles are about .5 inches high

### 4. THE SQUEEGEE DOES NOT DRY THE FLOOR PERFECTLY

1. Check that the squeegee rubbers are clean
2. Check that the suction tubes are properly inserted in their seats on the squeegee
3. Check that the distributor is clean
4. Replace the rubbers if they are worn



### 5. TOO MUCH FOAM IS GENERATED

Check that low-foam detergent is being used. If necessary, add a small amount of foam-retardant liquid to the recovery tank.

Remember that more foam is generated when the floors are not very dirty.

Dilute the detergent more when cleaning floors that are not very dirty.

## BRUSH SELECTION AND USE

### **POLYPROPYLENE BRUSH (PPL)**

These are used on all types of floors and offer good resistance to wear and to hot water (not more than 140°F.). PPL is not hygroscopic and consequently preserves its characteristics even when wet.

### **DRIVE DISKS**

Drive disks are recommended for cleaning polished surfaces.

There are two types of drive disks: type CENTER LOCK type, which has a plastic snap-in center lock system that permits perfect centering of abrasive disk and ensures it is kept anchored without detaching:

1. With sets of anchor stubs that retain and drive the abrasive disk during operation
2. With sets of bristle locks that retain and drive the abrasive disk during operation

**TABLE FOR CHOOSING THE BRUSHES**

Machine	No. of brushes	Code	Type of bristle	Notes
GB1400E	1	421701 422213 422001	PPL Pad holder – anchor Pad holder – bristles	

### **LIMITED WARRANTY**

This scrubber is warranted for 1 year from the date of purchase as shown on your distributor's invoice. Parts not covered under warranty are power cords, filters, motor brushes and squeegee blades. The warranty covers only failure due to defective parts or workmanship and will be invalidated by improper application and use. Items excluded from warranty coverage, unless found and reported defective immediately upon removal from the original shipping container and before being used by the original purchaser, include: power cords, floor brushes, and motor brushes. In NO circumstance should you return a failed unit to the factory. If you experience any problems with your scrubber during the warranty period, please contact Customer Service at 800-237-7582.

**PULLMAN-HOLT**

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